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THE NOSTRUM TRADE—ITS INFLUENCE ON HEALTH AND MORALS.

EXTRACTS FROM THE MANUSCRIPT OF A MEDICAL FRIEND.

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\* \* \* THERE is, however, another department of the subject, not hitherto touched upon, of too much importance to be omitted; I mean the pathological relations of the organism, or its relations where already diseased, and especially its relations to remedies, real or supposed. Undoubtedly such a knowledge of the laws of life and of nature as all men are capable of acquiring, might, if acted upon, diminish the present amount of disease to a comparatively very small remainder, perhaps eradicate it, or nearly so; but, while disease remains, it does not seem likely that any science attainable by the human mind can qualify unprofessional persons to prescribe remedies. Because, what is called the science of medicine is, and, I think, must always remain, such a combination of science with art, skill, tact, and a medical sense, which can only be acquired by much observation of disease and experience of remedies, that, if all men were equally physicians, all must be unqualified and unskilful. The requisite observation would be no longer made—and the characters and changes of disease are often such as no science can enable the unpractised eye to detect; and the instinctive adaptation of remedies, which marks the man of skill, is impossible to inexperience. Only on the supposition of medicine becoming a science in the strictest sense of the term, can the treatment of diseases be committed safely to other than professional, that is experienced, hands. But, if we suppose all diseases to be curable by strictly scientific methods, that is, with infallible certainty, would it not be to have discovered a natural connection between transgression and impunity? To have found natural antidotes to the natural consequences of carelessness, indolence, vice, and every form and degree of sensual indulgence, does it not imply a contradiction? Such a provision for the body at the expense of the soul, would it not imply, in the order and design of Providence, a preference of the lower to the higher, of health to virtue, not compatible with the probable, or manifested, character of the Deity? An arrangement so necessarily and inevitably debasing in its influence, would it not impeach the goodness of God? Is the discovery of such a science of medicine probable, or

even desirable? But not to insist on this view, to the abatement of the enthusiasm of those who reckon pain to be evil, and enjoyment good, it is plain that, until such a science is attained, or the elixir of the old alchemists invented, the management of pathological relations will be most safely intrusted to those professionally qualified for that most difficult duty. But if every man cannot, without danger, become his own physician, such a general knowledge of pathology as will convince him that he cannot, as will enable him to know when he really needs advice, that he may ask it in season—such an acquaintance with the nature and effects of medicines as will make him cautious and indisposed to poison himself in the use of them, as will unfascinate him in regard to the magic virtues of mysterious remedies, as will make him less intermeddling and thwarting of the wisdom of nature than ignorance is ever disposed to be, as will assure him that science promises to vice, and self-indulgence, and even to error, no impunity; this amount of knowledge is within the reach of all, and is, for every one, among the most indispensable conditions of the preservation of health, and of the cure of disease. The tendency of science is to diminish the use of medicines even in sickness, and to bring back the patient, as fast, and as far, as possible, to the conditions, and obedience to the laws, of health; that of ignorance, to expect not only the restoration, but the preservation also, of health, and counteraction of the natural consequences of loved indulgences, by the mysterious agencies of occult and wonder-working mixtures, spells, passes, pills and antidotes—still, as of old, believing that the sorcerer's mystic craft can control the powers of nature, and circumvent the ordinances of heaven.

The natural difficulties of finding, attaining and possessing the conditions of health are sufficiently great, the natural causes of disease are sufficiently numerous—but, as if these were not enough, men have found, in the all but universal resort, “both in sickness and in health,” to the use of secret and slow poisons, in the form of drugs of their own prescribing, an extra-natural cause, which, if we measure its effects, direct and indirect, immediate and remote, will be found entitled to take rank next in place to those most destructive of human life. It seems to be a sort of infatuation, under the influence of which men become equally the victims of their own ignorance and foolhardiness, and the dupes of deceptions so transparent, so gross and stale, and at the same time so adroit as rarely to lose their credit, and withal so wicked, that, perhaps, on no other occasion, do men manifest, on the one hand, such an incredible facility of being made fools of, and on the other, such a cool unblushing impudence in lying, and such a diabolical disregard of its consequences to those whom it deludes—a swindling process so monstrous, a reckless greediness of gain, a wholesale robbery, and taking of purse, of health, and of life, that would not hesitate to include also among its means the pistol and the poignard, if they promised equally rich returns with equal impunity. These are severe charges to bring against a class of men which has become both large and respectable, so far as wealth and consequent power and influence can confer respectability;

a wealth, often almost without parallel, and an influence and power which, at the same time, exercise and extend themselves by subsidising and controlling (and it were more true than polite to say, bribing, and making particeps criminis in furtherance of their schemes of plunder) almost the entire periodical press of the country. The extent to which the pockets of the community are laid under contribution by the use of patent medicines may be inferred from the incredible amount of advertising, puffing, and other printing and engraving, to which they give rise (and if I am correctly informed, that kind of advertising generally pays an extra price), this amount being, from the nature of the case, a pretty correct index and measure of the number of inventors, manufacturers, venders and consumers, to which last, the circumstance of being obliged to foot all the bills, is the smallest and least harmful consequence of the purchase. It is but justice to say, that many of the agents of these results can plead the same ignorance as the ultimate sufferers, an ignorance, however, under the circumstances, little more excusable than the worse motives (we may say motives rarely paralleled in depravity), from whose influence too many cannot plead exemption.

That I may not, by men willing to know the truth, be thought guilty of slander, let us examine somewhat the character and natural effects of the miracle-working nostrums, which, if their authors were not liars, would be, at least, an equivalent for the lost elixir of life. And we shall, perhaps, be enabled, at the same time, to account for the perennial delusions in regard to them, notwithstanding their palpable imposture, and the impudent, and sometimes blasphemous effrontery of their assurances.

The most common form of these poisons is, probably, that of cathartic pills; and in this form, from the greater extent and frequency of their use, I am inclined to think the amount of their deleterious effects is greater than in any other. All these, with one consent, are commended to the stomachs of their dupes and victims, whether sick or well, by setting forth, beyond the doubt of all minds adapted to such logic, the stereotype quack pathology, that all disease, and all danger of disease, arise "from impurities of the blood." Hence it follows, inevitably, that these very pills, which are expressly adapted to that sole and all-sufficient end and purpose of purifying the blood, cannot fail to cure, or prevent, any, whatever disease, or danger of disease, the purchaser may either feel, or fear. This conclusion is irresistible. They promise also, probably, to remove all gross obstruction, to improve the appetite, and enable the stomach to digest food without inconvenience. Persons suffering from the effects of indolence, sedentary labor or study, improper diet, unventilated dwellings, or some other transgression of the laws of life, sick or "not very well," find, in these adroitly-penned documents, which meet their eye in the daily or weekly paper, or some pamphlet put into their hands, their very feelings and symptoms so minutely described, and the obvious method of relief so kindly pointed out, that they cannot but make trial of so promising a remedy. And forthwith the promise, however extravagant, of the knowing impostor, is,

much to the satisfaction of the patient, fully realized—for to one suffering from accumulated bile, or torpid and obstructed bowels, or overloaded bloodvessels, or the ennui of indolence, what, more effectually than an active cathartic, affords decided and immediate relief? The bad feelings, however, soon return, and probably with augmented annoyance; but the blood is not to be purified in a day, and the accompanying certificates show cures after the use of ten, twenty, thirty, fifty, boxes!! Perseverance, therefore, is one of the elements of success; and he perseveres, with improving appetite, better spirits, a disposition to commend his new-found panacea to his neighbors, and a readiness to express his gratitude, and at the same time promote the good of "all others afflicted in like manner," by a "certificate" of benefits received. Partly, then, from a predisposition to faith in the unknown and mysterious, which is rarely wanting in the consumers of nostrums, "*omne ignotum pro magnifico*" (for the same preparations when they become known lose all their popularity)—partly from the feeling, only apparently inconsistent with the other, that now they are admitted into the very secrets of nature—partly because the very extravagance of the lie gives it, to such minds, the air and power of truth, and because common honesty has no conception of pure fraud and villainy—and partly because excited expectations and hopes are (apparently) confirmed by experience, we may understand how the use of secret remedies is often commenced, and why it is likely to be continued. There are also other reasons in the case of cathartic pills why their use should not be soon discontinued. For what really happens when their apparent good effects confirm delusion, and experience is the ignis fatuus which allures to destruction? Cathartics are substances whose natural relations to the alimentary canal, the stomach and bowels, are such, that they stimulate, some more and some less, both their muscles, and their lining membrane, with which, when taken, they come in contact. Their effect, therefore, is to propel their contents, at the same time that they excite secretions into them; that is, they remove unhealthful, depressing, and otherwise annoying accumulations from the body, and by diminishing the quantity of its fluids, they relieve whatever organs are oppressed by a too plethoric, or an obstructed condition of the system. Hence it is manifest, that, to one who would gladly neglect the conditions and disregard the laws of health, or who ignorantly does so, the occasions would not be unsrequent on which he might find them a convenient, easy, and seemingly successful, substitute for both knowledge and obedience. They seem to ignorance, a natural provision for natural ills; and to disobedience, a gentle penance for any dear indulgences; and thus they encourage, and increase, by promising all but impunity to, such indulgences. It is not likely, therefore, that pills will cease to be popular, so long as the wonder-loving are made to believe that they work miraculous regeneration of the blood—the lovers of indolence, of study, and of sedentary habits and employments, that they can take the place of labor and of exercise—the lovers of the table, that they obviate the necessity, not only of fasting and abstinence, but of temperance, sobriety, and all observance of the natural laws of diet—and

the lovers of dissipation, social and other excitements, that they can cure the consequent constipations, ennui, nausea, neuralgia and megrims—and, especially, so long as they not only undertake, but actually perform, all these kind offices.

But, moreover, it is true of this class of poisons, in common with all other unnatural stimulants, that their use constantly increases the seeming need and utility of them. At every repetition of the excitement of the muscles, and mucous membranes of the digestive canal, by these substances, they become less and less susceptible of the natural but milder stimulus of food, and of their own ordinary secretions. Their excitability is undergoing a gradual, but constant, process of exhaustion. Hence, not only does the use of the more stimulating substances easily, and almost necessarily, become habitual, and nearly impossible to be laid aside, but their quantity or their strength must, for the same reasons, be gradually and constantly increased. Accordingly, the patent directions are to be sure and take enough, with the assurance that the pills cannot fail to cure you if only you take enough; and that the more you need, the more certain evidence it is of the *impurity of your blood*, and of your need to take more—that is, the more you need, the more you need, which is true for once, and proof of the truth of the proverb, that “the Devil can speak truth.” These repeated excitements, however, and consequent exhaustion of the nervous energy of the stomach and bowels, and the frequent contact with their surfaces of such pungent and acrimonious stimulants, produce at length, as might naturally be supposed, still other results. Their mucous membranes, which are among the most finely organized parts of the body, become, first irritated, then inflamed, thickened, ulcerated, softened, corroded—their innumerable small glands, destroyed or enlarged, swollen, tender, painful, permanently excited, and pouring out unhealthful fluids instead of their own natural secretions. But the perfect integrity of the structure and functions of the mucous membrane is indispensable, more, perhaps, than that of any other organ, not only to the existence and conscious feeling and enjoyment of health, but to the due performance of the functions of other organs; and their diseases often produce, sooner or later, both derangement and disease of the other great organs essential to life, of the kidneys, the heart, the brain, the lungs, or the skin. Hence, as a natural and inevitable result, the whole miserable train of dyspeptic, hypochondriac, nervous, and other complaints and diseases of the digestive organs and their consequences, too many, even to be named, except in a nosological catalogue. These, for the most part, come ultimately into the hands of the physician, too often to exhaust both his patience and his skill, and to return again to some newest form of quackery, alternating between hope and fear, until Nature, who *never forgives*, and will not tolerate, transgression beyond a certain point, puts an end, at length, to life and delusion together. Thus we see how these poisons, notwithstanding the palpable humbug written on the face with which they come forth, are, nevertheless, with a very devilish art, adapted to the character and circumstances of their victims—their apparent good effects, and the seem-

ing success of the attempt to circumvent nature, extending, and confirming, their influence and control over the whole system, until it has no longer the power to set itself free. And when the natural effects and ultimate consequences appear, they are so remote in time, and it is so uncertain when, and where, they will first, so decidedly as to awaken alarm, manifest themselves, that they are very rarely, in the mind of the sufferer, referred to their true causes, and men here, as frequently on other occasions, father the legitimate offspring of their own ignorance, folly and vice, upon the inscrutable decrees of Providence.

The same misguiding experience, and the same final effects in kind, and for essentially the same reasons, follow the use of "Anti-dyspeptic Bitters," and other mixtures professing to cure indigestion, especially when prepared, as many of them are, with alcohol. They are a sort of natural symptom and accompaniment of the disease of pill-taking. Cough medicines, in regard to the amount consumed, are probably second only to pills, and exceed them, if that were possible, in the outrageous extravagance of their pretensions, in which they "out-Herod Herod." These maintain their credit by a somewhat different method. They almost uniformly contain opiates and alcohol, and the first effect, generally, is to diminish the cough, and make the patient "feel better." And if, bye-and-bye, as a natural consequence in many coughs, they excite inflammation, and the cough returns with more violence than before, it is attributed to exposure, imprudence, accident, or any other cause than the true one. And when the disease is thus kept up to a fatal termination, as not unfrequently happens (an attempt with delusive opiates to smother the very fire that often they alone keep burning), the cheated victim dies with regret that he had not procured the medicine sooner, since, "it did him so much good, that it would have cured him if he had taken it in season." Frequently, too, they are used in coughs which are going through a spontaneous process of cure, which is natural to most coughs, and if they do not happen to prevent it they of course carry off all the credit of the recovery, for with ignorance the "*post hoc ergo propter hoc*" argument is one which may always be confidently relied upon. Sometimes, also, undoubtedly, when given in a stage of the disease to which they happen to be adapted, very unpromising cases have, unfortunately, done well under the use of them. I say unfortunately, for every such case of success gives them a credit by which they kill fifty. A great variety of diseases, differently seated, owing to different causes, and requiring different treatment, often go under a common name, and this is especially true of those attended with cough. Almost every disease, too, is a process going through different stages, and requiring, if any treatment, different treatment in different stages, insomuch that what would cure the patient in one stage may kill him in another. Now it must be obvious to all, except believers in oracular quack wisdom, that if a medicine, which happens to be suitable for some one stage, of some one disease called a cough, and directed to be cured by cough mixtures, is given indiscriminately through all the stages of the whole number of different diseases, that the chances of benefit are to the chances of injury, as one is

to the whole number of stages of all the diseases. And such is just about the proportion of cures effected by this class of nostrums. In what proportion of cases they destroy life, or prevent spontaneous or other cure, and otherwise injure or destroy the general health, cannot be known, until certain accounts are rendered, likely hereafter to be called for. It is not without good reason that almost every patent nostrum claims to be a *panacea*, the one all-sufficient remedy for every disease; for otherwise, unless it can on all occasions give directions in regard to itself, when it ought to be used, its author cannot by any possibility absolve his conscience of the guilt of a most malevolent disregard of human life, not to say of a malevolent taking it away. And it cannot be pleaded in extenuation that the medicine is wholly inert (though many of them are so) and therefore harmless; for one of the great dangers in the use of self-prescribed or irresponsibly advised medicines, arises from the fact that often, in attacks of disease, such that life depends upon prompt, efficient, and skilful treatment, they are tried and trusted in until all remedy is too late. And he whose wilful lie, its probable consequences being known, indirectly causes death, how is he less wicked than he whose false witness or whose dagger takes the life of his neighbor?

There is still another class of these accursed drugs which bids fair to outrun the popularity even of pills. This consists of various compounds, in the form of syrups, or tinctures, which come forth, thick as the spawn of Egypt, under the common name of sarsaparilla. These profess, not only to "purify the blood," and cure all the ills that flesh is heir to in general, but to purify the skin also especially, and in particular to eradicate *scrofula*, that perennial quack bugbear, and to have power over old sores, rheums, scabs, itchies, ulcers, cancers, tumors, and other such like unseemly ailments. As the concocters of sarsaparilla (which, however, commonly contains none of that inert substance) have learned that cases of this class, often found difficult of cure, are sometimes benefited by the most active and dangerous articles which physicians can employ, and which need to be used with great caution in order to avoid future bad consequences, they do not hesitate, with utter contempt of human health and life, so they "put money in their pockets," to drug their otherwise wholly inefficient mixtures with corrosive sublimate, iodine, arsenic, &c., with the cool expectation and hope, that by bringing them into indiscriminate, and as far as in them lies, universal, use, some lucky chance-cure may increase the credit of their poison and of course the profits of their trade. If they succeed in this, as, in punishment of the sins of men, they now and then do, the whole press teems with puffs, pictures and pamphlets, and a wholesale poisoning commences of as many as fear or fancy that they may be guilty, either by acquisition or inheritance, of any "impurity of the blood." In the meantime, if, as is likely, the dose is made palatable with spirits and bitters, every body "feels better," "cannot do without it," while the poisonous effects are insidious, remote, unrecognized, and probably (an undesigned homœopathy) their cure attempted by the continued use of the very agents which produced them. If the

god of gain in any other men prompts a more purely devilish depravity than is here manifested, they are gentlemen of whom I have not heard.

Such are the character and natural effects of a few of the untold multitude of pick-pocket preparations with which, more unfortunate than Egypt of old, "the whole land stinks." So that from the infant, who, if drugs and other "dunned practice" can do it, is murdered in its mother's womb, or quieted in its cradle, to him who escapes longest, few escape wholly the arrows of this artificial pestilence, which both walks in darkness and poisons at noonday.

The dangers from the popular and general use of these boastful compositions are of three kinds—dangers which do not arise from natural domestic remedies, of which it is known what and how much they are capable of accomplishing. The first is the natural and inevitable tendency of many of them, as pills, bitters, and preparations of opium and alcohol, when their use becomes habitual, to destroy health and ultimately life; and the nature of their effects almost ensures their use becoming habitual if it be once commenced. To these may be added the more active poisons which still sooner infect the system, although their effects may not always sooner manifest themselves. The second danger is of ignorance prescribing and giving medicines, which might sometimes, in skilful hands, be useful, in the wrong disease or in the wrong stage, in which cases the effects may be fatal by being directly the contrary of those expected and promised. The third, and perhaps the greatest danger of the three, is inseparable from the whole miserable list without exception, that they are liable to be confided in, and especially in attacks of acute disease, until the remedies which might have saved life are no longer available. Most appropriate here would be the proverb which forbids to play with edged tools, for medicines are two-edged instruments, which may be hurtful or fatal both in the misuse and the non-use. Yet however obvious it may be to one acquainted with the subject, or even to a moment's reflection, that he has need to be well instructed who gives either direction or advice where health and life are involved, how few of either sex, even the least competent, scruple to take upon themselves that responsibility, with a readiness and officiousness, which, whether they indicate the more profound unconsciousness of their own ignorance, or the more stupid disregard of consequences to others, it were not easy to determine. But if it ought not to be thought strange that ignorance, which hazards its own life, should not hesitate to hazard that of another, ought it not to be reckoned passing strange, when physicians, and that not the mere rabble of the profession, but men of character and reputation, lend their names to promote the circulation of sarsaparilla? "The contents of the bottle have been made known to *them*, and *they* think it may be useful in some cases—they would advise physicians to use it." And *that* appended to a mixture puffing its way into popular use! A thoughtful man's astonishment can be equalled only by his indignation, for if we could suppose (which would be very exemplary charity under the circumstances) that they intend to encourage its use by the profession only, do they not de-

grade the rest of us at once to quacks? For who else than a quack is inspired to know when, or how, to use safely a medicine of which he knows not the ingredients? Can a man of science, or of conscience, prescribe unknown nostrums, unknown to himself, because, perchance, something contained in them may hit the nail on the head? Nothing, surely, can explain such facts, except the supposition of the most incredible thoughtlessness; or else, which in some cases cannot be supposed, of the influence of the power which is so potent over the press.

There is another fact very incredible to an honest man. Physicians themselves have put forth patent mixtures for popular use; but, by way of salvo to their consciences, they have directed—at least, some of them—that the venders shall make known, to *all physicians*, the ingredients of which they consist. Alas! my brother, had you not first forgotten to include in your morning prayer, “Lead us not into temptation”? Do you think that your apparent frankness and willingness to appeal to the faculty that it is a “*good medicine*,” will diminish its danger when prescribed by others than the faculty—the danger of its indiscriminate, injudicious, ill-timed and ill-adapted use? Is it a *panacea*? Has it such wonderful properties, that, taken in health, it works no harm, and that given in *any* disease, in *any* stage of it, in *any* quantity, it cures it so infallibly that no other treatment can ever be necessary? so that it can never be ill-judged or ill-timed? That, sir, is the medicine to put into the hands of ignorance; a sharp instrument indeed it is, but the edge is always on the right side, and the most careless man can neither hurt himself or any body else with it. The out-and-out quacks are more consistent in their pathology—one disease and one remedy!! That, sir, is the true law of humbug—it is simple, beautiful, universal! like the law of gravity, not encumbered with clumsy exceptions on which unskilfulness may stumble. But yours is a medicine only for coughs. Well, then, will it cure any cough? or, not to make the test too severe, will it cure any curable cough? Will it cure any curable disease, in any stage of it, of which cough is a symptom, whether that disease be in the head, the throat, the lungs, the liver, the stomach, the spine, the kidneys or the heart? for disease in any of these organs, and others besides, as you very well know, or ought to know, may excite cough. That is, your cough-mixture, in order to be safe for unskilful use, must be *the* one medicine for *the* one disease. Or until that is discovered, or at least a specific for each disease, and people have learned to distinguish one disease from another, is it likely to promote the health or morals of the community, that innumerable poisonous compounds, mendaciously promising impunity to every vice, and exemption or relief from every disease, should be used carelessly and freely as water, until they are supposed to be more necessary, and are found to be more expensive, than daily bread, so that a new clause would be appropriately added to the Lord’s Prayer, “Give us this day our daily medicine”? Prythee, dear doctor, for the good of your neighbors and the credit of your profession, leave quackery to the quacks, and study the laws of life, and perhaps you will find that many diseases may be relieved with very little medicine; and where that can-

not be, since it is always an evil, let it be the least of the two, that the remedy, if it cannot be avoided, may yet, which does not always happen even in professional hands, prove somewhat less dangerous than the disease.

If, now, we consider the various aspects and bearings of this subject, will it not be obvious to reflection, that nothing can deliver the community permanently from the constant invasion of ever new swarms of the unclean and all-consuming locusts of quackery, in which its being annually robbed of untold millions is but dust in the balance in comparison with the waste of health and of life, that nothing can uproot this stupendous scheme of fraud and villany, except such a knowledge, universally diffused, of the laws of life and health, of the general principles of pathology, of the natural relations of the substances called medicines to the human body, and the ways in which, here, experience is so liable to become delusive, that there shall be no where left any darkness of ignorance in which these workers of delusion and iniquity can hide themselves? For what else than such a light of knowledge in their own possession, can give vision to men who not only are readily and as it were willingly led astray, but perversely and wilfully reject every proffered light and guidance derived from the knowledge of others? It is quite in vain to assure them that they are being cheated in their pockets, injured in health, and endangered in their life. Ignorance is jealous of knowledge—sometimes not without reason—and it is often the more confirmed in error the more you attempt to dissuade it. If the physician opens his mouth against quacks and quackery, the suspicions of those he would benefit are at once awakened:—it is evidence that his craft is in danger; —and the mischief he seeks to diminish is only increased. And it avails nothing to attempt to convince them that quacks are our fast friends, and furnish us more business than any other single cause of disease. They *will* understand it that the practice of medicine is a monopoly, and that “free trade” in pills is its natural enemy. It is a common opinion among mankind, and has been since the days of faith in signatures—a faith not yet extinct—that medicines are natural remedies, in the bounty of Providence, for natural ills, diseases being the inscrutable infliction of Heaven. Nothing, therefore, is more difficult than to persuade a patient to be cured without, or with very little, medicine. He will swallow any quantity of drugs, but just in proportion as you withhold *them*, he withdraws his confidence. And advice and direction to return to the conditions, and to obedience to the laws, of health, besides that they may require what is out of his power, and certainly require a very difficult energy and self-denial on his part, indicate also to him, on the part of the physician, ignorance of the “healing virtues that reside in plants medicinal,” and he dismisses him for a less scientific but more pragmatical adviser, or launches himself, under his own pilotage, upon that sea, which, like Sir John Mandeville’s sea of sand, “no man mought pass,” the shoreless sea of quackery.

An honest man might be well nigh tempted, as probably some have been quite tempted, to undertake the cure of humbug homœopathically;

for if he but combine science with some harmless charlatanry, which, like the stone in Gil Blas's broth, shall serve as food for wonder, and moreover keep up his credit, and convince gainsayers that "some things can be done as well as others," he will find comparatively little difficulty in enforcing obedience to what science may direct. A strict regulation of diet and sleep, with active exercise or labor in the open air, and other conformities to Nature, will cure many chronic complaints incurable by mere medicine; and the millionth part of a grain, even of chalk or magnesia, will not often interfere with the process; and a reasonable quantity of hydropathic dipping and drenching, not only does not impede it, but, in many cases, is quite indispensable to its success.

Thus it is manifest beyond all, or at least beyond all other than captious, question, that knowledge, the active and energetic exercise of the voluntary function of the brain, is, for every individual, a condition never to be forgotten, of the realization of the very first ends of the organism—its own perfection and preservation. This function can never safely remain latent. The machine cannot work out these products without it. For if Nature required of us less exemption from error, if she were more lenient, and there were less danger from her displeasure, how should we defend ourselves against *men*, always, and every where, the most dangerous enemies of *man*? But not only must there be cultivation and activity of the intellect, there must be knowledge of these very laws and relations—of the human body of which we have been speaking. Yet here, out of a part of the medical profession, ignorance is all but universal. An ignorance which even public education almost, or altogether, overlooks. Hence educated men often have so little of this knowledge, which is the condition of the value and efficiency of all other knowledge, that they not only forfeit their faculties, health and life, and at the same time, not unfrequently, reckon themselves martyrs to duty while in the violation of its very first principles; but for the same reason, the otherwise better informed classes of the community, and especially the clergy, are by no means among the least liable to medical delusions, and are, certainly, the most efficient, because the most influential, promoters of the interests, and of course of the mischiefs, of medical empirics and mountebanks. Two popular errors are, if not innate, ingrained in the human mind. They descend, if not by propagation, by some other transmission, from generation to generation. Like original sin, they are an hereditary taint of the race. One of these is, that diseases are an arbitrary and mysterious infliction of the Deity; and the other, that health is, often, to be pursued, and always, restored, by the use of substances called medicines, preventive or remedial, externally or internally applied. The consequence is, that instead of investigating accurately the conditions of health in order to prevent disease, we remain, for the most part, stupidly or wilfully ignorant until the evil has beset us, and then, with officious and intermeddling distrust, instead of co-operating with the restorative powers of Nature, by placing ourselves under their influence, and yielding obedience to her laws, we place ourselves in still more unnatural conditions, do ourselves up in outside skeletons, and commence

to swallow in succession all known substances, if perchance the antidote to our disease may be found among them. Before these false opinions, the basis of our delusions, can be eradicated—before we can conform to all the conditions of the preservation of health, and of its restoration, when the offence against nature is not capital—before we shall avoid increasing the ills we ignorantly attempt to remove—before we can understand the natural relations of our own organism inward and outward, so far as they are directly or indirectly under our control, of how many departments of Nature and of man must we first acquire knowledge! And before all these relations are so adjusted that man shall attain to his natural period of life, we shall be convinced that Nature does not intend the brain to be, for any, a supernumerary organ, and that the full performance of its voluntary function, not less than that of the voluntary muscles, is one of the indispensable conditions of our physiological well-being.

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#### ENORMOUS ABDOMINAL TUMOR.

[Communicated for the Boston Medical and Surgical Journal.]

AT a *post-mortem* examination that took place in this city on the 24th inst., an immense tumor, weighing 114½ pounds, was removed from the body.

The history of the case is this. S. P. R., a laboring man, of medium stature, and of rather intemperate habits, aged about 60 years, received a strain from some cause, about two years ago. Soon after, his abdomen commenced enlarging, and continued to increase until his death, when he had obtained the enormous girth of 6 feet and 11 inches. The lower extremities and back were anasarca, and a distinct fluctuation could be felt on percussing the abdomen. The operation of paracentesis abdominis had been performed by Dr. P. H. Hard, of this city, in two different places, but without much success, as he only obtained a very small quantity of water. He was seen by several physicians before his death, and it was the opinion of all (I believe without an exception) that it was a case of encysted dropsy. They were the more confirmed in this opinion, from the ability which the patient retained to the last, of having his position changed without interfering with the functions of the lungs, or other organs, in any great degree. He took, during his illness, but a small quantity of food, but was in the habit of using some stimulus every day.

Upon opening the body, a very small quantity of water was found within the cavity of the abdomen. The viscera mostly lay posterior to the tumor, and were quite healthy (with the exception of the colon, which showed some signs of inflammation, where it passed over, anteriorly, the tumor), though they were very much compressed. The lungs were forced into a small space in the upper part of the thorax. The heart was about half the natural size, and the pericardium contained nearly a pint of water. The liver was about half as large as usual, but otherwise perfectly healthy. Stomach, intestines, &c., were very

much contracted in size, but generally healthy in appearance. The tumor had its origin in the mesenteric glands near the region of the left kidney, which was wanting, as it could not be found, either in the body or the tumor.

On dissecting the tumor, the superior and larger portion was found to consist of a very large number of sacs, or cysts, of various sizes, and bound together by strong ligamentous bands, and containing a semi-transparent jelly, and water. The jelly, or fibrine, was organized, for though it would oscillate and waver, upon percussion, it could only be broken up, or destroyed, with difficulty. Some of the sacs contained the fibrine alone; others contained it with a small quantity of water; and others contained water only.

About one eighth part of the posterior and inferior portion consisted of a semi-cartilaginous substance, very hard, and containing some points of ossification—presenting, when divided, very much the appearance of the mammary gland of the cow, and showing some indications of assuming a malignant or carcinomatous character. Enveloped within the substance of the tumor, were several enlarged mesenteric glands, approximating and assuming the semi-cartilaginous character of the base of the tumor.

The specific gravity was more than that of water; for the whole tumor was contained in a wash-tub that would not hold 100 pounds of water. Drs. Hard and Dunton conducted the examination, and the weight of the tumor was witnessed by several persons, besides the members of the profession who were present.

A. H. STEELE, M.D.

*Oswego, N. Y., Aug. 28th, 1848.*

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#### LEDOYEN'S DISINFECTING FLUID.

*To the Editor of the Boston Medical and Surgical Journal.*

DEAR SIR,—I have been unwilling to burden your pages with replies to correspondents, who have noticed, from time to time, "Ledoyen's Disinfecting Fluid," and you will please take this as the only reason why I have not done so. But the article which appeared in the Journal for 12th July, requires a brief answer. It would have been replied to earlier, but I have waited for facts from one who was well acquainted with them, which will be found below. Your correspondent, Z. B. A., no doubt thought he was doing justice to the public in the publication of his article. So I would fain publish this reply to do justice to Mons. Ledoyen and his disinfecting fluid. Z. B. A. quotes from the London Medical Gazette, for Jan. 1848, in which the following paragraphs occur:—"The question of disinfecting the wards of fever hospitals by different compounds, which have of late been puffed into a most undeserved notoriety by parliamentary and other documents, has received a fearful solution in the death from fever of one of the most active experimentalists, Col. Calvert." "M. Ledoyen has himself suffered from an attack of typhus, and is now, as we learn, on his way home to England."

It is not my business to defend the British Government from this wholesale slander, but only to look to the interests of those with whom I am connected. The following certificate is given by one who was well acquainted with the above-named gentlemen, and who was a boarder at the Albion Hotel in Quebec, with them, at the time when Col. Calvert sickened and died. It will place the above false statements of the London Medical Gazette in their true light.

T. R. HAWLY.

*Quebec, Canada, Aug. 26, 1848.*

"MR. T. R. HAWLY.—My dear Sir,—Yours of the 19th is received, and contents noted. In reply, I most cheerfully give you the following; the more so, as it will correct false statements.

"I, Peter Poulin, of the city and State of New York, now a temporary resident here, and personally acquainted with Mons. Jean Ledoyen, of Paris, France, chemist, proprietor and compounder of a chemical preparation, commonly called 'Ledoyen's Disinfecting Fluid,' and also with the late Col. Calvert, who accompanied him to the British Provinces, under the direction and patronage of the British Government, was with them during the sickness and subsequent death of Col. Calvert, and the illness of Mons. Ledoyen. And I hereby certify, that the cause of the death of Col. Calvert was a matter of controversy with the attending physicians, and they were unable to decide whether he died of fever, or whether his death was induced by long-continued habits of intoxication; that he died at the age of 70 years, and was said to have been in the use of ardent spirits from youth; that Mons. Ledoyen was but slightly indisposed, occasioned by excessive labor among the sick, but was not confined to his bed, neither called, or had a medical attendant, though at the age of about 70 years; that his sickness was not fever; that he did not return to Paris until March 8, 1848, after he had been in the United States months, visiting Washington, and some of the principal cities of the different States.

"Witness, F. R. Hawkes.

(Signed) PETER POULIN."

#### ADDITIONAL PARTICULARS IN THE LIFE OF THE LATE DR. O. PARTRIDGE.

[A LETTER from Dr. S. W. Williams, the writer of the memoir in our last number, containing some further particulars respecting the late Dr. Partridge, was received too late for them to be inserted in their proper place in the memoir. An abridgement of them is given below.]

I have stated that I believed he early united himself with the church in Stockbridge. It seems this is a mistake. A writer in the Massachusetts Eagle says:—"Though not a professor of religion, he was decidedly a religious man. Some peculiar views which he held upon a non-essential point, he deemed sufficient justification for not uniting with the church to whose cardinal doctrines he heartily subscribed. But, if not a professor, he was a lover of the Gospel, and a conscientious contributor to its sup-

port. Its doctrines were his study during life, his solace amidst the infirmities of age, and they crowned with glory his final hours."

"Soon after entering upon his profession, the revolutionary war broke out; and sympathizing with his countrymen, when the news of Burgoyne's approach to Bennington came thundering down the country, and the stout yeomanry, seizing their arms, hastened to repel the invaders, Dr. P. followed the Berkshire detachment to the scene of action, and rendered the aid of his professional skill to both friend and foe, after that field of glory had been won by the Continental arms. As a friend of subordination and law, he rendered himself obnoxious to the malcontents in the time of the "Shay's Rebellion," and was one of the forty citizens who were seized by the insurgents on their irruption into Stockbridge, Feb. 26, 1787. He was carried by them to Great Barrington, but released before the battle of Sheffield, which occurred in the afternoon of the same day. After that, he continued in the peaceful practice of his art, acquiring esteem and influence among his fellow citizens, and was honored with their confidence, and with various offices in their gift.

"He was probably the only man living who remembered Col. Ephraim Williams, the founder of Williams College. He was a child of four years when that gallant officer stopped at his father's house on his way to Albany, to join the regiment, at the head of which he was shortly after killed, near Lake George, Sept. 8, 1755. He described him as a portly, dark-complexioned, fine-looking man, and his soldierly bearing and dress made an ineffaceable impression upon the little urchin he held upon his knee."

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#### VALUABLE SUGGESTION.

*To the Editor of the Boston Medical and Surgical Journal.*

SIR,—Having been called recently to a case in which it seemed necessary to use chloroform, according to my usual custom I poured some upon a sponge, and applied it to the mouth and nose of the patient. A young gentleman standing by (Mr. Field, a medical student of this city), remarked, that it had often occurred to him, if some means could be used to prevent the rapid evaporation of the chloroform from the external surface of the sponge, the desired effect might be produced in a much shorter time, and with the expenditure of much less chloroform. He thought the usual conical-shaped sponge (the best *inhaler* yet introduced) might be covered with gold-beater's skin in such a manner as to secure the wished-for result, leaving a circular aperture in the apex, of half an inch in diameter, for the admission of air. Acting upon Mr. F.'s suggestion, I had one prepared in the manner described, and I have been absolutely surprised at the amount of *time and chloroform* saved by this experiment. *One fourth the amount* usually employ

ed will produce complete insensibility in *one half the time* required by any other inhaler.

I would cordially recommend the sponge thus prepared to all those who have occasion to make use of chloroform or sulphuric ether.

Boston, September, 1848.

Respectfully yours, P.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, SEPTEMBER 13, 1848.

*Deaths from Chloroform.*—The foreign Medical Journals contain accounts of deaths which have taken place after the use of chloroform—some of which were apparently caused by the use of that article in unsuitable cases, and others in all probability had no other connection with such use than that of merely succeeding it. In the case of Mr. Badger, of London, on whose body an inquest was held on the 1st of July, a verdict was rendered that he "died from the mortal effects produced by the inhalation of chloroform upon a heart extensively diseased and greatly obstructed in its action by a liver much enlarged beyond its natural size." This, and other similar cases, together with the extensive experiments made some months ago in London by Mr. Wakley, show, that though chloroform may often have nothing to do with the deaths which are hastily attributed to its use, yet a cautious discrimination is always and everywhere necessary in its administration. Some of the conclusions of Mr. Wakley, founded on the above-named experiments, are important in this connection, and we therefore copy them below.

"The results of some of the above experiments warrant, I think, an important practical application. On some points, at least, no room remains for doubt. An examination of two or three facts irresistibly impels the mind to this conclusion. Only four days previously to the death of that celebrated surgeon, whose loss is truly a national calamity, the sufferer himself, while laboring under a paroxysm of dyspnoea, thought that he might possibly find relief from the inhalation of the vapor of chloroform. The suggestion was adopted; the vapor was administered, but necessarily without any beneficial result. Why necessarily? Because the *post-mortem* examination exhibited lungs that were 'engorged throughout,' and an 'aneurismal sac' near to the heart. Under such circumstances of disease, and in such a condition of the lungs, a more unfortunate or dangerous remedial agent than the chloroform could not have been employed. This is now incontestably proved by the dissections in the instances in which death followed the experiments which I have just recorded. The examinations prove that blood, almost black, had collected in the heart and lungs, and the great vessels connected with those organs, to a degree of intensity which was probably never surpassed. Anything of the kind more striking probably was never witnessed in *post-mortem* examinations. What, then, is the practical application of the facts which are thus brought under our consideration? Why, obviously and necessarily, that when there exists any disease of the heart, any aneurism near to the heart, any threaten-

ing dyspnoea, or any tendency to an 'engorgement of the lungs,' it would be highly imprudent to recommend the inhalation of the vapor of chloroform or of ether; but that in any of the abnormal conditions here described, should the practitioner determine upon employing one of the two agents in question, assuredly the more dangerous one of the two would be found in the vapor of chloroform."

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*The New York Board of Health.*—A correspondent in New York, a short time since, in a note to the editor, requested that we would "blow up the quarantine regulations" of that port, which he says are "*the essence of absurdity.*" However desirous we may be to oblige the gentleman in all reasonable requests, and notwithstanding the interest we feel in every thing relating to the public health in that great city, our position in this matter is not unlike that of the stranger, who being present at a very solemn meeting, when the people were melted by their sympathies into tears, and being asked why he did not weep also, replied, "I belong to another parish." Yet we will take the liberty of saying, that in our opinion a great and wholly uncalled-for alarm was excited in New York by the late official announcement that yellow fever existed at the quarantine ground. That was, at least, an indiscreet measure, so far as publicity was given to it by the press. A susceptibility to the disease, whatever it might be, must have been created by the announcement. Fortunately, however, common sense triumphed, and only a few cases were developed. If a little more of the horrific had been infused into the report, the spread of the fever would, in all probability, have actually taken place. But even if it had not, a worse measure could not have been devised in regard to the business and trade of the city, since country purchasers invariably flee from reputed pestilence and plague-stricken cities.

This being an age of intelligence, wonders scarcely live; certainly, they seldom reach the venerable age of nine days, the constitutional period for remaining astonished at what cannot be comprehended. Hence it is not worth the labor to beat the air in a rage, or attempt annihilating those fat functionaries of the Board of Health, because they acted precisely as such bodies generally do under like circumstances, viz., increase the risk of the spread of fever a hundred fold, by bulletins intended to quiet the rising apprehensions of the multitude. We do not, therefore, see our way clear to *blow up*, according to request, the grave guardians of the public health in New York.

When any unusual manifestations of disease are noticed at the quarantine station of the port of Boston, it has been the policy of those most familiar with the department, to keep perfectly cool, and say no more than is absolutely necessary, till the anomalous appearances are fully understood. Without pretending to be models for others, we may say that this course has invariably proved most satisfactory. Opportunities occur annually for starting a hue and cry about some terrible sickness, that would ruin half the commerce of the city, if addle-headed men had the control.

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*Water-Cure Almanac.*—The tricks of trade are ingeniously multiplied and extensively practised in our day. One would suppose that if one half was true that is asserted by water-curers, a resort to a miserable back-door advertising sheet, under the inoffending title of Almanac, would be un-

necessary. But a perpetual blast of the trumpet must be kept up, or customers will fall off.

All sorts of interests are quacked into notoriety through almanacs, expressly designed to creep, snail-like, into all kinds of dwellings, in so humble a form as not to have the object suspected. However, the cloven foot cannot be concealed. Joel Shew, M.D., the hero of this almanac, cannot feel much flattered with the coarse wood-cut on the title-page. Those large, fierce eyes have none of the mildness of the moon-beams in them. "*Wash and be clean*"—a quotation staring one in the face from the top of the page, is imperative, and should be universally obeyed. But there is no command emanating from the same unquestioned authority, which says, "go to a *professed water-curer, be douched, and pay a tremendous fee for it.*" Knowing very well that it is impossible to convince people that they are egregiously imposed upon by knavish quacks, and being satisfied that there is an indescribable kind of happiness in the delusion of being cured by new methods, we shall not quarrel with, but laugh at, the folly which we see exhibited by hydropathists.

*Treatment of Cholera.*—Dr. Maxwell, of Calcutta, who has lately published a "Key to the Cholera" (he himself having had three attacks of the disease), thus alludes to his recovery from the last attack. Our quotation commences after his description of the occurrence of the characteristic spasms.

"The thirst, however, became worse and worse, and I determined to relieve it at all hazards, and not add misery to death. Having made up my mind, the next point was the choice of the particular beverage; there was plain water, whey and barley-water, gruel, congee, &c., wine and water, brandy and water, &c. To the last of these I had a repugnance, as every one has in fully-formed cholera, and the others would require time and direction for their preparation, which my disease was not able to afford, or I to give. Whilst thus ruminating, my eye accidentally fell upon a packet of effervescing soda powders standing among a crowd of other remedies and nostrums on the table. It immediately took my fancy; it struck me as the very thing I wanted, and without further delay I pointed to it, and made signs for a copious draught thereof. It was soon made and soon swallowed; it was extremely refreshing and agreeable, and the thirst was allayed; no nausea succeeded, and the pleasing anticipation remained of having a repetition of the draught whenever I desired. This I was not long in desiring; in fact, almost immediately after I swallowed another, and continued repeating it whenever the thirst became urgent. Instead of retrograding or remaining stationary, I began to improve; the stools became easier, and the spasms less vigorous and vicious.

"I experienced an inclination to sleep, a desire to be covered up, and for something hot to drink (these are the best signs, they point out the disease escaping from the collapse stage). I had a large tumbler full of very warm but weak brandy and water made, and drank it off. I fell asleep and had five or six hours of sound repose. I awoke bathed in perspiration, and with the exception of a little stiffness and considerable thirst, I felt perfectly well. The thirst was again relieved by the effervescing draughts, and I followed up the principle with a couple of dishes of that most delectable and pre-eminent of all stomachics, tea."

*Citrate of Iron.*—Our friend Edward Parrish has shown us a *syrup of citrate of iron*, which appears to be a good preparation. He first prepares a moist protocarbonate of iron, by mixing together solutions of sulphate of iron and carbonate of soda, precisely as directed for Vallet's ferruginous mass, and washing with sweetened water. This is then dissolved by means of a slight excess of citric acid in water, and evaporated to dryness. A greenish, deliquescent, freely soluble, uncrystallizable salt results, the taste of which is ferruginous, but not very unpleasant. To make the syrup, one ounce (troy) of this salt is dissolved in five fluid ounces of simple syrup, which is easily effected, and forms a dark greenish-brown liquid. The dose is from thirty drops to a teaspoonful. The syrup of citrate of iron of Beral is a saccharine solution of the citrates of ammonia and sesquioxide of iron.—*Amer. Jour. of Pharmacy.*

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*Advantage of Rail Roads and the Telegraph to the Profession.*—We recently made the journey of 542 miles, performed an operation (remaining twelve hours with the patient), lost comparatively no sleep, and were absent from home only fifty-one hours—two days and three hours. The arrangements were made by the telegraph, and the travelling done by rail-way.—*Southern Med. and Surg. Jour.*

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*U. S. Naval Surgeons.*—A Board of Naval Surgeons will assemble at Philadelphia, October 25th, for the examination of candidates for admission into the Navy as Assistant Surgeons. Persons who are 21 and not over 28 years old, desiring to appear before the Board, can receive permission by making application, accompanied by proper testimonials, to the Secretary of the Navy.—*Union.*

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*Mortality in Lynn.*—The present season has been unusually sickly in Lynn, Mass. In August there were 75 deaths, and from the 1st to the 7th September, there were 23. The average annual deaths number about 250. In the burial ground in the eastern part of the town, where about half that number are interred annually, in August 56 interments were made. Many adults are included in the number, from a peculiarly fatal type of the diarrhoea.

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Page 100, of this Journal, line 3, for *fascienti* read *fasciculi*.

A set of the volumes alluded to by our friend in Montreal, can be furnished at this office. They are uniformly bound and lettered, are nineteen in number, and the price is \$28.50.

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**MARRIED.**—At Portsea, Eng., Dr. E. P. Irving to Miss A. J. Claributt.

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**DIED.**—At Waynesville, Ill., Dr. Dallenger, killed by a lawyer in the street.—At Marlboro', Mass., Dr John Baker, 66.

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*Report of Deaths in Boston*—for the week ending Sept. 9. 97—Males, 47—females, 50.—Of consumption, 9—disease of the bowels, 28—dysentery, 25—typhus fever, 2—scarlet fever, 1—lung fever, 1—dropsy on the brain, 2—infantile, 9—teething, 1—old age, 4—marasmus, 3—child-bed, 2—cancer, 1—measles, 1—lock-jaw, 1—tumor on the brain, 1—inflammation of the lungs, 1—suicide, 1—canker, 1—dropsy on the chest, 1—dropsy, 1.

Under 5 years, 57—between 5 and 20 years, 5—between 20 and 40 years, 18—between 40 and 60 years, 8—over 60 years, 9.

*Medical Miscellany.*—A Boston boy, named George Blanchard, whose height is 6 feet 7½ inches, and his weight 306½ pounds, says the Boston Journal, was born on the 8th of March, 1829, and consequently is but 19 years and 5 months old.—The Book of Health for the Million has appeared in Boston, under the editorial supervision of one who is supposed not to know much about the matter.—A year ago the 16th of last April, Dr. Webb, living in Windham, Conn., a man in easy circumstances, and enjoying a good practice as a physician, in company with his family, spent an evening in visiting the family of Mr. Clemence Dyer, with whom they were on friendly terms. After their return, Dr. Webb immediately retired to his barn and committed suicide by hanging himself, no adequate cause ever having been assigned. Subsequently, a Dr. Litchfield became his successor in practice, moved into the house occupied by Dr. Webb, and with his family, on Friday evening, the 11th ult., visited and spent the evening with the family of Mr. Dyer, and after returning, went to the barn and hung himself, on the same timber and within a foot of the same place where his predecessor had committed the same rash act, a little more than a year ago; laying his hat upon the same spot where that of Dr. W. was found. Both gentlemen sustained excellent characters, and left interesting families. Dr. L. had been a subscriber to this Journal for the last 12 or 14 years.—The Green Mountain Spring, the official organ of the Brattleboro' hydropathic establishment, attempts to be particularly smart in its comments on the article that appeared in this Journal in relation to the interference of clergymen with physicians.—Dr. Grimshaw, who went to Mexico as a private in the ranks, and was subsequently commissioned by the President a surgeon's mate, has returned home.—Mr. Fininley, a surgical instrument maker, for many years employed by Weiss & Evans, London, has established himself at No. 22 School Street, in Boston.—Dr. Morrill made a splendid balloon ascension in Boston on Saturday, September 2.—By mistake, Dr. Mann, instead of Manning, was mentioned in the Journal a while since, as the inventor of the ingenious and valuable apparatus for managing fractured jaws.

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*Artificial Paralysis.*—Mr. M'Nunneley, surgeon, of Leeds, England, has for a considerable time been carrying on a series of experiments on the effects of ether, chloroform, and other anæsthetic agents, the result of which he laid before the branch meeting of the Provisional Association at Leeds, on the 7th inst. They point to novel and important views, seeming to establish the possibility of applying these agents to certain parts of the body with the effect of producing local insensibility, whilst the brain remains unaffected. He stated that by either immersion in a small quantity, or by the vapor applied merely for a limited period, a limb may be rendered perfectly motionless and senseless, and, what may be an additional advantage, fixed in any desired position. Mr. M'Nunneley stated that he could completely paralyze any limb of frogs or toads, by immersion or exposure to the vapor, in about five minutes or less; and he mentioned as a curious fact that, if the exposure to the influence were continued longer than was sufficient to produce a local effect, this influence extended to the corresponding limb of the other side. By this new mode of application to the hind legs of rabbits, he had been enabled to amputate the toes without any indication of feeling.